Name: ..... **Class:** .....

Task 1

Over 300 billion emails are said to be sent every day.

(a) Briefly explain the process and protocols by which emails are sent from one computer to another computer.

(b) Give **one** difference between POP3 and IMAP protocols.

Task 2

1. The TCP/IP protocol governs the transmission of data across several layers in the TCP/IP stack.

   (a) Name **three** application protocols that operate on the Application layer of the stack and state the software that they might be associated with.

   (b) Describe the role of the Transport layer.

(c) Routers are necessary to pass data packets from one node to another in a network.

(i) Which protocol are routers governed by?

(ii) On which layer do routers operate?

(d) The Data or Link layer contains the physical hardware used for communications. What hardware would this include?

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2. Label the protocol layers below in the correct order, and match them up with the appropriate protocols.